

Your Assured Steel Products Supply Chain



**The CARES Sustainable Constructional Steel
Scheme Summary Report 2019/2020**

SUPPLIERS

Take a look at the
global reach of
the scheme

PERFORMANCE

See the latest data
and targets to 2020

SPECIFY

Learn how to procure
sustainability scheme
certified steel products



ukcares.com

Independent, impartial and trusted



About this report

This report focuses on the latest updates and performance of the CARES' Sustainable Constructional Steel (SCS) Scheme. The data covers calendar year 2019 and updates cover changes to the scheme or its operating environment to publication in Autumn 2020. It shows how a CARES-approved supply chain for constructional steel can help reduce business risk and provide a range of other benefits. For information on the wider operations of CARES and other certification schemes offered by CARES please refer to our website and annual operating plan.

The principles within the BS 8902: 2009 standard (inclusivity, integrity, stewardship and transparency), and Global Reporting Initiative (GRI) Standard 101 (materiality, context and report quality principles) inform the report's development.

2015 is the baseline year for the sector's environmental, social and economic metrics used in the report. We welcome your comments and feedback on this report and on how the constructional steel sector can contribute to a sustainable future.

Contents

- 03 Chairman's statement
- 04 Locations of CARES sustainability scheme-approved suppliers
- 05 Providing assurance to the construction industry
- 06 Procuring Sustainable Constructional Steel
- 07 Performance: Environmental, Economic and Social

What is CARES?

CARES is an independent, not-for-profit certification body. It operates for the benefit of the construction industry offering certification schemes for companies that produce materials, components or offer services, primarily to the reinforced concrete industry. Clients can specify CARES approved companies and products with the confidence that they will comply with the relevant product or system standards and without the need for verification testing by the purchaser or contractor.

CARES is governed by its Board and advised by its Policy Advisory Committee composed of the following Members: Association for Consultancy and Engineering, Heathrow Airport Ltd, British Association of Reinforcement, Civil Engineering Contractors Association, CONSTRUCT, Highways England, Institution of Structural Engineers, Post-Tensioning Association, UK Steel Association. The Chairman's nominees are representatives from; the International Steel Trade Association, contractor MACE, the British Independent Reinforcement Fabricators Association, Office for Nuclear Regulation (ONR/HSE) and Rail Safety and Standards Board

The CARES Sustainability Committee is a technical advisory group made up of stakeholders from the construction industry, independent experts and representatives from the steel industry. Its role is to review and advise on the Sustainable Constructional Steels Scheme.

The Sustainable Constructional Steel (SCS) Scheme

CARES is accredited by the UK Accreditation Service (UKAS) to provide certification for management systems, product conformity and – the subject of this Report – sustainability management and performance.

The SCS Scheme operates in compliance with BS 8902: 2009 'Responsible sourcing sector certification schemes for construction products'. This Standard provides a framework for the responsible management, development, content and operation of sector certification schemes applicable to the supply of construction products. Specifically developed for the constructional steel supply chain: the scheme enables suppliers to declare the sustainability performance of their products and organisation.

Recognition of higher levels of performance, beyond the mandatory pass level, can be gained through achieving 1, 2 or 3 (4 from 1st January 2021) Rosettes in the CARES Rosette Rating System.

Through the SCS Scheme, CARES collates environmental and social performance indicators and sets targets for future performance as shown on page 7. A key benefit for the end user is that constructional steel products from CARES approved suppliers are traceable, allowing an assured, identity preserved, chain of custody from mill to site.



Chairman's statement:

Challenges and opportunities for sustainable development

When I took on the Chair's role less than two years ago, I anticipated some challenges and looked forward to the opportunities that would present themselves. 2019 and 2020 have, however, seen some exceptional circumstances that have disrupted societies and economies across the world and thrown normality into the air.

Extreme climatic events, including unprecedented Australian and Californian fires, record levels of Arctic ice melt, record-breaking temperatures in many regions and growing stakeholder demands have reinforced the need for swift and deep emissions reductions towards net zero. Covid 19 has sadly resulted in many deaths, has brought some sectors to a standstill at times and has reduced everyone's ability to travel and meet directly. Trust in institutions and individuals has been put under strain by false information. All of which reiterate our mission 'To make the CARES digital assured reinforcing steel supply chain the safest, most effective, efficient and sustainable in the world.'

While these challenges seem immense and many remain, some of the solutions have been innovative and swiftly implemented, allowing new thinking to emerge. CARES has been part of this process and I am extremely proud of what it has achieved in the last year on behalf of its stakeholders. Although operational travel has been restricted, the commitment and flexibility of our audit teams and our approved firms has enabled us to continue to conduct elements of the audit process, albeit remotely, according to procedures aligned to accreditation requirements.

Ten years have now passed since CARES first introduced the Sustainable Construction Steels Certification Scheme. While the scheme has grown and strengthened, our team has continued with its extensive engagement, seeking to understand new ways to meet the expectations of construction clients in the UK and across the global markets that we serve. Reducing greenhouse gas emissions, maintaining human rights, ensuring safe and fair labour conditions and understanding how socio-economic value is created by the industry are some of the focal areas of this work. A key outcome is the development of version 9 of the scheme, effective from 1st January 2021.

The revised scheme incorporates three mandatory performance thresholds for; Global Warming Potential, Lost Time Injury Rates and Raw Material Sourcing evaluation. It operates a Rosette Rating System which provides credits to recognise and incentivise performance exceeding the mandatory levels.

The levels have been adjusted to enable organisations to better understand and to plan for a 'transition pathway' from current performance levels to aspirational 'sustainable' steel production, represented by a new '4 Rosette Rating'. This rating requires responsibly sourced, near zero emission steel, produced and processed sustainably with good safety performance and a CARES digital record. Scheme targets have been revised with additional target dates added to align to the 2030 Sustainable Development Goals and the 2050 Paris Climate Agreement.

Specifiers and procurement teams can quickly see performance for selected, key indicators on the new Balanced Scorecard. Revisions to the certificate will show the provenance of all the key stages in the constructional steel supply chain, together with any Rosette Ratings achieved.

In addition to recognition under BREEAM UK New Construction 2014, the UAE ESTIDAMA Pearl building rating system, our verified company-specific Environmental Product Declarations (EPD's) to EN 15804, a requirement of the scheme, are accepted in the US Green Building Council's LEED certification. Following a rigorous assessment, CARES has succeeded in its application to add its EPD scheme to the Carbon Labelling Scheme as part of the Green Product Certification (GPC) run by the Hong Kong's Construction Industry Council (CIC).

By operating independently, with integrity and impartially, CARES continues to build trust in the assurance services it provides to the construction sector. The development of its digital record and the SCS scheme is helping enable construction clients ensure that their choice of materials is supporting more transparent and responsible construction product supply chains. Our plans include fully digitising the auditing process and records to incorporate sustainability data to deliver even more value to users.

I welcome readers to this report and invite you to explore the scheme and its performance.

A handwritten signature in black ink, appearing to read "S. Brunswick".

Steven Brunswick
Chairman of CARES

Locations of CARES sustainability scheme-approved suppliers

CARES has global reach. The SCS Scheme is internationally recognised as the preferred certification system for sustainable constructional steel. CARES-approved suppliers benefit from the wide acceptance of CARES-approved steel by green building rating systems around the world. The map shows CARES-approved suppliers, those which have started to achieve higher performance levels under the Rosette Rating System and their locations.

Rating:  **PASS**

Belarus

- Open Joint-Stock Company Byelorussian Steel Works-management company of Byelorussian Metallurgical Company holding (Zhlobin, Belarus) 

France

- ALPA, Gargenville **PASS**



Germany

- ArcelorMittal Hamburg GmbH, Hamburg 

Netherlands

- Van Merksteijn B.V., Almelo 

Ireland

- Brazil & Co. (Steel) Ltd. T/A Fairyhouse Steel, Ratoath 
- Midland Steel Reinforcement Supplies, Mountmellick, Co Laois 

Portugal

- SN Maia - Siderurgia Nacional, S.A., San Pedro Fins, Maia **PASS**
- SN Seixal, Siderurgia Nacional, S.A., Seixal **PASS**

Qatar

- Qatar Reinforcement Company, W.L.L., Doha **PASS**
- Qatar Steel Company(QSC), Mesaieed 

Spain

- Megasa Siderúrgica SL, Naron 

Turkey

- Bastug Metalurji Sanayi A.S., Osmaniye **PASS**
- Colakoglu Metalurji A.S., Gebze 
- Diler Iron and Steel Co Inc., Gebze **PASS**
- Ekinciler Iron & Steelworks Inc., Iskenderun **PASS**
- HABAS A.S., Izmir **PASS**
- ICDAS Celik Enerji Tersane Ve Ulasim Sanayi A.S., Biga 
- Izmir Demir Celik Sanayi A.S., Izmir **PASS**
- Kaptan Demir Celik Endustrisi Ve Ticaret AS **PASS**
- Kroman Celik Sanayi A.S., Gebze 
- Yazici Iron & Steel Co Inc., Iskenderun 
- Yesilyurt Demir Celik, Samsun **PASS**

United Arab Emirates

- Conares Metal Supply Ltd, Rebar Mill, Dubai **PASS**
- Emirates Steel Industries, ICAD I, Mussaffah, Abu Dhabi **PASS**
- Hamriyah Steel FZC [Sharjah, United Arab Emirates] **PASS**
- Union Iron & Steel Company L.L.C Mussafah, Abu Dhabi **PASS**

United Kingdom

- ArcelorMittal Kent Wire Limited, Chatham **PASS**
- ArcelorMittal Kent Wire Limited T/A AMCS, Chatham **PASS**
- Capital Reinforcing Ltd, Bromborough 
- F Brazil Reinforcements Limited, Canvey Island 
- Hy-Ten Reinforcement Co Ltd, Chatham 
- Lemon Groundwork Solutions Ltd, Wickford **PASS**
- Midland Steel Reinforcement Supplies, London Thamesport 
- Roe Bros & Co Ltd, Peterborough **PASS**
- Thames Reinforcements Ltd, Sheerness 

Ukraine

- ArcelorMittal Kryviy Rih PJSC., Kryviy Rih **PASS**

Oman

- Jindal Shaded Iron and Steel LLC Sohar **PASS**
- Sohar Steel, Sohar **PASS**

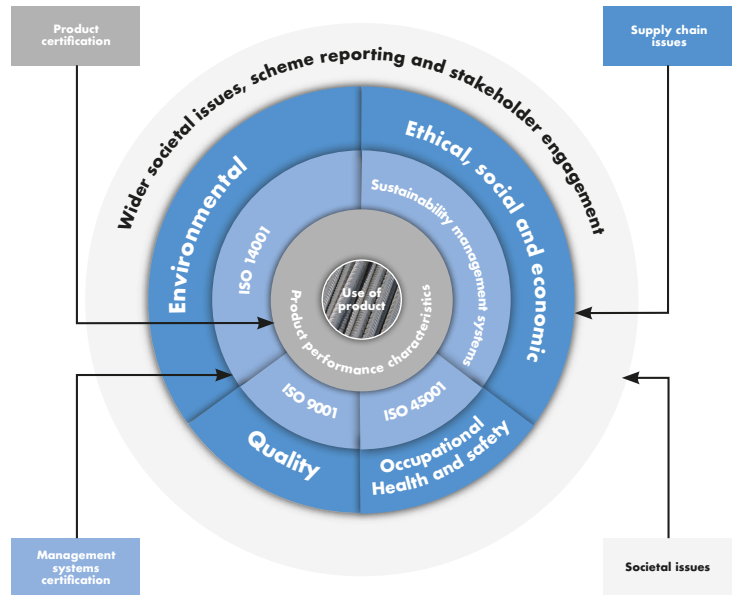
Key

- Reinforcing Steel Producers (Electric Arc Furnace)
- Reinforcing Steel Producer (Integrated Iron and Steel Plant)
- Feedstock Coil Producer
- Structural Steel Producers
- Flat Steel Producers
- Reinforcing Steel Processors (Fabricators)

Providing assurance to the construction industry

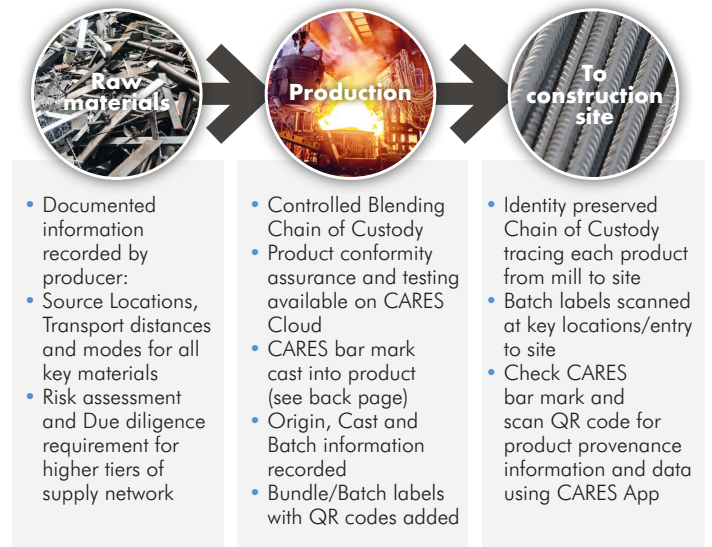
Scheme coverage – the ‘extended’ product applied to reinforcing steel

The concept of the extended product can be used to illustrate the demands placed upon a modern construction material supply chain, as shown here. CARES Product conformity standards are the basis of assurance for the physical product, which is shown in the centre of the diagram. Clients also want reassurance beyond the physical product, extending their concern into the management of environmental impacts and labour conditions throughout the supply chain. Management systems, as shown further out from the centre in the diagram, are a requirement of the SCS Scheme in order to demonstrate that the range of issues, illustrated in the next concentric circle out, are being continually improved. Reporting outputs of the scheme are shown in the next circle and are part of stakeholder engagement, shown in the outermost circle, the effectiveness of which is also a requirement of the scheme.



Traceability through CARES SCS product markings

All CARES steels are 100% traceable at a batch and product level to the original steel producer. Many of its raw materials are also traceable to their source, with transport modes, distances and locations of key suppliers recorded as part of the scheme. Controlled blending and independent testing by CARES ensures the exact grade specified is produced with a unique cast number and the associated quality data recorded on the CARES Cloud. Molten steel is cast and rolled, where the unique CARES bar marks are added to each piece of rebar. It is then batched and delivered to the fabricator. Batches of product will carry the labels shown to the right. During cutting or bending the cast number is accompanied by a ‘bar schedule reference’ with the ‘bar mark’ retained during this process, and in the final product delivered for use on site.



Product labelling:



Environmental Product Declaration (EPD)

An Environmental Product Declaration (EPD) is a transparent way of communicating a Life Cycle Assessment (LCA) of the environmental impacts of a product in a common format based on common rules. The CARES EPD covers Life Cycle stages from the extraction of raw materials, through processing, manufacture, refurbishment to eventual end-of-life and disposal. The data, checked by CARES and verified by BRE, is produced in accordance with EN 15084 (Sustainability of construction works). EPD’s are required for each supplier and CARES also produces an average for the SCS Scheme.





Project specifications

To specify reinforcement steel that meets government and private sector responsible sourcing requirements and to gain rating credits in building rating schemes, such as the BREEAM UK New Construction: 2018, use text as shown below in your specifications. For more information contact us.

Steel Reinforcement

All reinforcement shall conform to the 2005 versions of BS 4449, BS 4482 or BS 4483 as appropriate. All stainless steel reinforcement shall conform to BS 6744:2005.

All reinforcement shall be cut and bent in accordance with BS 8666:2005. The reinforcement shall be obtained from firms holding valid CARES product conformity scheme certificate of approval for the production and supply of the steel reinforcement.

Reinforcement traceability system

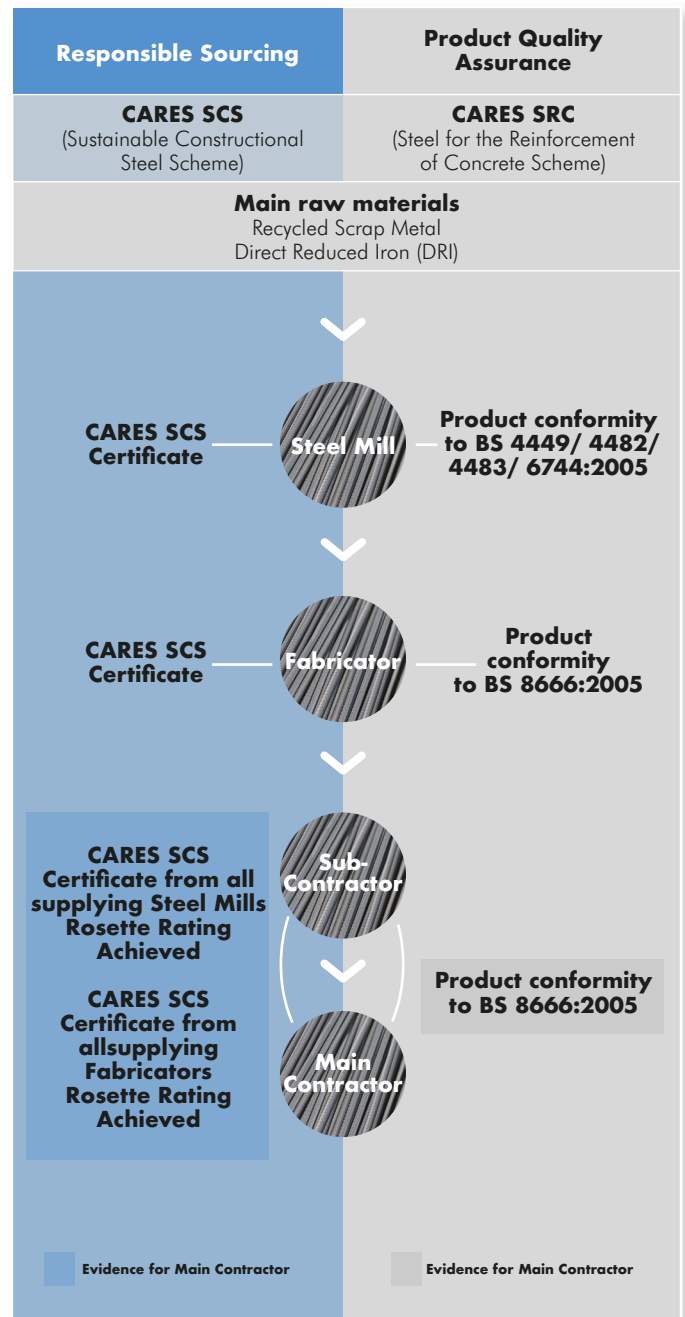
All reinforcement delivered to site shall be fully traceable to the cast/heat/batch number, reinforcement supplier and reinforcement manufacturer. The reinforcement product test data shall be provided and a valid CARES certificate of approval shall be provided for the reinforcement supplier(s) and reinforcement manufacturer(s). Each bundle of reinforcement - straight bar, cut/bent, fabric, reinforcement mat, or pre-assembled welded fabrication - shall be identifiable with a suitable and durable tag or label securely attached to the product.

Digital construction

All reinforcement manufacturers and suppliers shall use the CARES Cloud digital traceability platform (app and website) and digital record.

Sustainable construction and responsible sourcing

All reinforcement suppliers shall hold a valid CARES Sustainability Constructional Steels scheme Certificate of Approval for the manufacture and/or fabrication issued by CARES. This certificate can be enhanced by providing the Rosette Rating System ratings achieved by the manufacturer and/or fabricator, where achieved. The reinforcement manufacturer shall additionally provide an independently verified Environmental Product Declaration (EPD) which conforms to EN 15804.



“Mace is proud to be a responsible business. Our vision is to be the industry leader in shaping cities and building sustainable communities. To demonstrate this and give confidence to our stakeholders that we are achieving our sustainability goals such as reducing our carbon emissions and improving responsible sourcing of materials, it’s vital that we can obtain robust information and data from credible and preferably third party verified sources, such as through the CARES SCS certification.”

Andrew Kinsey, Environmental Strategy Manager, Mace

Performance: Environmental, Economic and Social

The following table summarises performance from 2015 (baseline) to 2019 against a selection of key scheme metrics. It includes approved producers using recycled steel in the Electric Arc Furnace process (17 approved firms). It excludes Integrated Iron and Steel plants, those which use Direct Reduced Iron (3 approved firms) and Iron Ore in the Blast Furnace process (1 approved firm), rolling mills only (4 approved firms) and fabricators. It includes targets to 2020 set from a 2015 baseline. The current status from the baseline towards to target is indicated.

Aspect	Key Metrics	2015	2016	2017	2018	2019	Target 2020	Status
Environment	Employees at ISO 14001 certificated sites (%)	98	98	100	100	100	100%	Achieved
	Material Efficiency - % for producer (tonnes billet, bloom or slab produced as % of total raw materials)	82.9	83.1	82.3	82.6	82.8	Increase 2%	Off track
	"Global Warming Potential (kg CO2e per tonne of carbon steel bar produced) ¹	840	840	898	760	755	Decrease 2.5%	Achieved
	Water Use m ³ per tonne of steel	1.01	0.93	0.93	24	0.97	Reduce 10%	Progress made
	Post-consumer steel scrap recycled in approved product (% by mass)	96.9	98.1	97.3	95	96	Increase 1.4%	Off track
	Waste to landfill (kg per tonne of steel)	58	43	47	26	4	Reduce 60% to 19	Achieved
	Waste to incineration (Kg per tonne of steel)	0.46	0.04	0.02	0.01	0.01	Zero waste to incineration	Progress made
Health & Safety	Employees at OHSAS 18001 or ISO 45001 certificated sites (%)	97	100	100	100	100	100%	Achieved
Ethical, Social, and Economic	Total number of environmental and social complaints resulted in a successful prosecution by an external Regulator in the data collection/reporting period ²	0	1	5	0	3	Maintain 0	Off track
	Skills and Training (Development of Employees) (Number of training hours per employee and contractor)	27	22	23	24	27	Increase by 5%	No change
	Community Relations - Approved producers who have a policy in place to increase engagement with community stakeholders (%)	100	100	100	100	100	Maintain	Achieved
	Community Relations - Approved producers who have specific systems in place to deal with local community complaints (%)	100	100	100	100	100	Maintain	Achieved
	Approved producers who have externally audited accounts for the latest financial reporting period (%)	100	100	100	100	100	Maintain	Achieved
	Approved producers who implement a policy to comply with ethical business practices (%)	100	100	100	100	100	Maintain	Achieved
	Suppliers evaluated against responsible sourcing policy and the social and environmental issues listed in CARES SCS Applicable Appendix's Section 3. (vi) (%)	n/a	12.50	20.00	12.50	17.65	75%	Off track
	"Reporting Sustainability Performance to Stakeholders - Publication of CSR/Sustainability Report on yearly basis (%)"	n/a	18.75	26.67	23.53	35.29	100%	Off track

An 'Approved' product or 'approved' suppliers refer to product and suppliers approved under the CARES SCS Scheme.

¹ This figure represents the mean average from the most current CARES third party verified EPD reports to EN 15804:2017 available for scrap-based producers approved by the scheme each year. 2019 data included 16 steel mills. The Global Warming Potential (GWP) covers raw material supply, transport, manufacturing steel products, use of product, end-of-life stages and recovery stages (Raw materials and Production: A1-3, Construction: A4-5, Use stage: B1-7, End-of-life: C1-4 and Benefits and loads beyond the system boundary: D, commonly referred to as 'Cradle to Gate + options') It includes direct, indirect and avoided scrap burden. The world steel industry follows the 'substitution/avoided burden' approach to recycling at end-of-life, and assigns environmental impacts to ferrous scrap. Consuming scrap increases GHG emissions and producing scrap (for recycling) gives a credit, reducing the overall carbon footprint. In this assessment it is assumed that the recycling rate at end of life is 92%.

² This includes a financial penalty, an enforcement notice, a prohibition notice, and/or a prosecution.



Your Assured Steel Products Supply Chain

Better for customers

Product Quality certification

Full traceability from steel mill to construction site

Sustainable Constructional Steel certification

Attract rating credits in BREEAM UK New Construction

The CARES mark identifies a specific mill in a specific country



Trust the CARES mark

Country = 7 ribs

Mill = 7 ribs



Tell us what you think

This is our ninth report where we seek to capture how the CARES Sustainable Constructional Steel supply chain impacts on the environment, society and the economy. We welcome your feedback.

CARES

**Pembroke House
21 Pembroke Road
Sevenoaks
Kent TN13 1XR**

**Tel: + 44 1732 450000
sustainability@ukcares.com**



When you have finished with this report, please recycle it.



Download the CARES CLOUD App

Independent, impartial and trusted

ukcares.com